

Fastening Device for the Headrest  
of a Vehicle Seat

Claimed is:

1. A fastening device for a headrest of a vehicle seat with two holders distanced from one another in a direction (Y) transverse to the seat for the adjustable guidance of the height of two of the headrest supporting rods (6, 7) characterized by:
  - a holder (4) with a first guide shell (23) which can accommodate a support rod (7) in the concept of slidable encasement, and
  - a carrier (24) mounted on the framing (2) of the vehicle seat (1), which said carrier is movable in a direction transverse to the seat (Y) onto which said carrier the shell (23) is movably mounted to pivot around a first axis (27) which runs in the longitudinal direction of the seat (X).
2. A fastening device in accord with claim 1, therein characterized, in that the guide shell (23) is pivotally supported about a second axis (28) which runs in a transverse direction (Y) to the seat.
3. A fastening device in accord with claim 1 or 2, therein characterized, in that the carrier (24) is placed to pivot about a third axis (51), which is distanced in the seat height direction (Z) from the first axis (27) and runs parallel thereto.
4. A fastening device in accord with claim 3, therein characterized, in that the third axis (51) is positioned underneath the first axis (27).
5. A fastening device in accord with claim 4, therein characterized, in that a section of the carrier (24), which is to be found above the third axis (51) is affixed to the seat framing (2) in the longitudinal direction (X) of the seat (1) and is movably guided in a transverse direction (Y) to the said seat (1).
6. A fastening device in accord with claim 4 or 5, therein characterized, in that the third axis (51) is defined by two projections (29) existing on the seat framing (2), upon which projections (29) of the carrier (24) are supported.
7. A fastening device in accord with one of the claims 1 to 6, therein characterized, in that the guide shell (23), by means of a ring projection (25) protruding from its outer side, linkedly engages itself in a complementarily shaped recess (26) on the carrier 24, whereby the surface of the ring projection (25) as well as the coacting surface of the said recess (26) are both portions of a spherical surface, the center-point of which is also the point of intersection for the pivotal axes (26, 27).

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8. A fastening device in accord with one of the claims 1 to 7, therein characterized, in that the guide shell (23) supports itself on a counter surface on the upper end of the carrier (24) by means of flange (48) projecting from its outside.
9. A fastening device in accord with claim 8, therein characterized, in that the respective coacting surfaces of the flange (48) and the carrier (24) are portions of spherical surfaces, the center point of which is the point of intersection of the first and second pivotal axes (27, 28).
10. A fastening device in accord with one of the claims 1 to 9, therein characterized, in that the carrier (24) is a hollow structural member, which is penetrated by the guide shell (23), which, in turn, is within a protective encasement (22) affixed to the seat framing (2), wherein clearance is allowed in the transverse direction (Y) of the seat.
11. A fastening device in accord with claim 10, therein characterized, in that the walls of the carrier (24) which face in the transverse direction (Y) of the seat, diverge in the direction of their lower end.
12. A fastening device in accord with one of the claims 1 to 11, therein characterized, in that the guide shell (23) is not-rotatably affixed in relation to its central axis (40).
13. A fastening device in accord with claim 12, characterized by two, radially extending detents, which are located at diametrically opposed positions on the ring projection (25), which engage themselves in two recesses on the carrier (24) with clearances in the X, Y, and Z directions.
14. A fastening device in accord with one of the claims 1 to 13, therein characterized, in that a recess is formed by a slot (45) in a Y-direction facing wall (46) of the carrier (24), which recess extends itself upward from an area of the carrier (23) underneath the coacting recess (26), which coacts with the ring projection (25) and opens in the upper end-face of the carrier (24).

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